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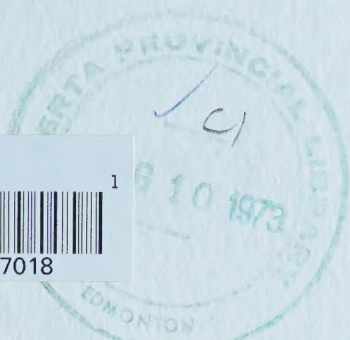
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Looking At Alcohol.



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# LOOKING AT ALCOHOL



THE ALBERTA  
ALCOHOLISM AND DRUG ABUSE  
COMMISSION

[MISC]

# **LOOKING AT ALCOHOL**

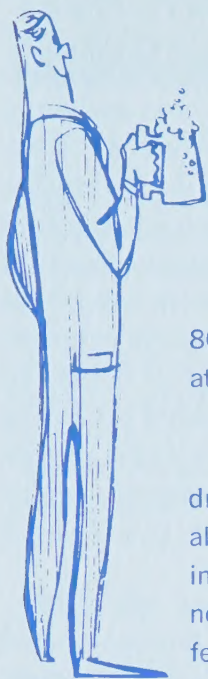


**A pamphlet designed to:**

- Distinguish fact from fallacy about alcohol
- Replace prejudice with knowledge about alcoholism

Approved for use in schools by the  
DEPARTMENT OF EDUCATION  
Province of Alberta

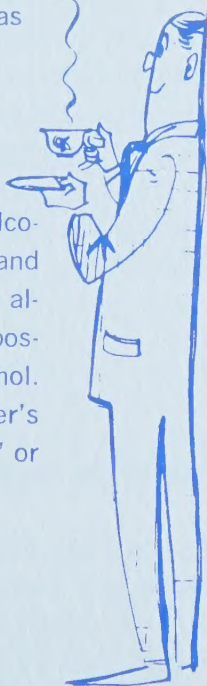
# Alcohol in Our Society



Man discovered ethyl or beverage alcohol thousands of years ago and, in different forms, it has been used ever since by most societies in most parts of the world. In Alberta the majority of adults, about 80%, drink alcoholic beverages at some time in their lives.

Those who choose not to drink should understand that, although the majority of adults in our society **do** drink, this is no reason for the non-drinker to feel awkward in drinking situations. You will be respected for your stand as long as it has a reasonable basis, and as long as you respect the right of the moderate drinker to make his own choice.

Those who choose to use alcoholic beverages should understand why they drink, the effects of alcohol on the body, and the possible dangers of too much alcohol. You should respect the abstainer's choice, for it is no less "adult" or "manly" than your own.





## **Why Do People Drink?**

Some people drink only on special occasions such as weddings and New Year's Eve — because it is their custom. These occasional drinkers do not disapprove of moderate drinking, but rarely drink themselves. Others may be frequent drinkers who often drink at parties or in their homes because alcohol eases their tensions, causes conversation to flow more easily in a gayer, more relaxed atmosphere. Regular drinkers may have one or two drinks every evening to relax after a day's work or to whet their appetite. Drinking is a part of their lives — but they are not dependent upon alcohol and could cut down or give it up if necessary.

All such users of alcoholic beverages could be called temperate drinkers — even though they may take a little too much on occasion, they can and do exercise careful control over the time, place, and extent of their drinking. These temperate drinkers make up the largest portion of all drinkers. Some people who use alcohol, however, do get drunk and do experience serious problems as a result of their drinking. Among these are the alcoholics — estimated in Alberta to be about 3% of all adults who drink.

## **Why Do People Abstain?**

In Alberta about one adult in four is a non-drinker, or abstainer. There are many reasons for abstaining — because of moral or religious convictions, because of dislike for the taste or effect of alcohol, or for financial, health or safety reasons.

# TEEN-AGE DRINKING

A recent study of teen - age drinking habits showed that a majority had tasted alcohol — about half of them in their own homes. Teen - agers, almost without exception, adopt the drinking or non-drinking customs of their parents.



## Why Do Teen-Agers Drink?

A strong incentive for young people to drink is that it is an adult practice and teen-agers, in their striving to appear mature and independent, try to adopt many aspects of adult behavior such as smoking, driving cars, wearing make-up, earning money, and drinking.

Many teen-agers start to drink because of a wish to conform to a group. If they refuse to drink, they feel they will not be accepted, not be popular. If drinking is so important that it is a condition of membership, is the group worth belonging to?

Not many groups are like this in adult society. The drinker and non-drinker will be accepted as long as he is not self-righteous, can respect the choice of others and, especially, if he has something worthwhile to contribute to a group.

Frequently a teen-ager drinks for the same reason as an adult — alcohol can temporarily reduce tensions, make the shy confident and tongue-tied talkative. Regular use of alcohol for these purposes can be dangerous. It is best to learn to handle tension and shyness without using alcohol.

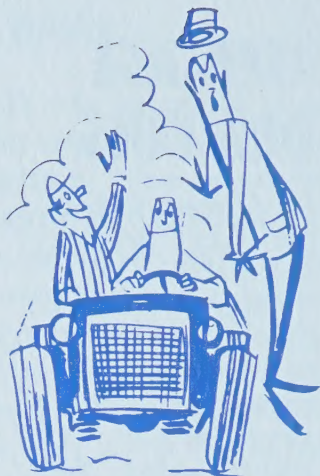
## **What Are the Dangers of Intoxication?**

Alcohol tends to reduce a person's self-control. Young people are usually more impulsive and less inhibited than

older people. Therefore, alcohol can more easily release the destructive impulses, aggressive behavior, and sexual urges of the young person. Moreover, the intoxicated person finds it difficult to consider the consequences of his or her behavior and can thoughtlessly get into serious trouble.

Even small amounts of alcohol affect muscular co-ordination and reflexes. An intoxicated person's clumsiness and slowness can endanger life, especially when he is behind the wheel of a car.

Quite early in their lives some people begin to use alcohol as a "personality medicine" to relieve shyness and overcome uncomfortable and awkward feelings in social situations. Learning to overcome these tensions is an important part of our emotional growth. Relieving them artificially, as with alcohol, can impede this growth. Those who use alcohol in this way can become dependent upon it to such an extent they cannot face any difficulty without the help of a drink. These people risk becoming problem drinkers or alcoholics.



## **What Does the Law Say About Teen-Age Drinking?**

In Alberta any person under 18 who tries to obtain alcoholic beverages or who is found with alcohol in his possession is liable to a fine of up to \$75.00, or imprisonment, for the first offence. He not only can get himself into trouble, but also the adults who supplied him with alcohol. With parental approval and supervision the law allows minors to drink in their own homes.





## **Do Some Beverages Contain More Alcohol Than Others?**

The alcohol in all alcoholic beverages is the same — ethyl alcohol which is made by fermentation or the action of yeast on the sugar of fruit or grain. Other members of the alcohol family — methyl, propyl, butyl, etc. — are not safe for human consumption and are found only in traces in alcoholic drinks. We have all heard stories of persons who have gone blind or died from drinking methyl or wood alcohol.

Alcoholic beverages differ in their ingredients, the way they are produced, and their strength. We can divide them into three classes — wine, beer, and distilled beverages.

Wine is fermented fruit juice and contains, on the average, 10% - 12% alcohol — unless it is "fortified" by addition of alcohol, as in sherry or port wines, which can contain up to 20% alcohol.

Beer is fermented cereal mash and contains, in Alberta, 4% - 5% alcohol. Usually beer contains hops which give it a bitter flavor.

Distilled beverages such as whiskey, brandy, rum, vodka, and gin are produced by boiling fermented beverages and condensing the vapor. Since alcohol boils at a lower temperature than water, it is possible to separate the two, producing a beverage with much higher alcoholic content. Distilled wine is brandy and distilled cereal mash is whiskey. Rum is distilled molasses, and gin is pure alcohol and water, flavored with juniper berries. Most distilled beverages in Alberta are "70 proof", or 40% alcohol.

## What Does "Proof" Mean?

Years ago, the strength of an alcoholic beverage was determined by the "gunpowder test". Gunpowder was saturated with the beverage and then lit. If the powder burned, this was "proof" that the beverage contained a certain amount of alcohol. In Canada, a beverage that is "100 proof" contains 57% alcohol by volume. Thus, a 25-ounce bottle of 70-proof whiskey contains 40% or 10 ounces of absolute alcohol. In the United States a 100-proof spirit contains 50% alcohol.

## Do Different Drinks Have Different Effects?

Various alcoholic beverages taste differently because they are manufactured from many types of fruit or grain with herbs and flavorings added. The only intoxicating property in all these beverages is ethyl alcohol. If a person appears to be happy when he drinks beer, or angry when he drinks wine, the difference is not in the beverage but in the amount he drinks or in his mood when he is drinking.

## What Happens When Drinks are Mixed?

*Beer on whiskey,  
mighty risky;  
Whiskey on beer,  
never fear.*



Many people believe if they drink several kinds or a combination of alcoholic beverages in one evening, they will become more intoxicated, be sick or at least have a worse hangover than if they had stuck to one beverage.

Since all these beverages contain the same type of alcohol, this can't be the cause of their problems. But by drinking a variety of beverages they probably drink more than if they had kept to one type of drink: so of course they will become more intoxicated. Sickness may be the result of too many mixes — orange juice, ginger ale, egg-nog, etc.; or eating a peculiar combination of food; or smoking too much or staying in a smoke-filled room too long. At any rate, it can't be blamed on mixing drinks because the alcohol is the same in all drinks.



## Why Does Drinking Alter Behavior?

Alcohol is an anaesthetic, or depressant. It is **not** a stimulant as is commonly thought. Its action is similar to ether; it puts the brain to sleep. The more you drink, the more you anaesthetize your brain — until finally you become unconscious. In fact, before the discovery of ether and chloroform, alcohol was used as an anaesthetic in surgery.

People often act “stimulated” when they’ve been drinking because alcohol first depresses the upper part of the brain, the centre of judgment, reason, and emotional control. The effect is a “releasing of the brakes” rather than a “stepping on the accelerator”. After taking a few drinks, tension, shyness, anxiety, inhibitions, and self-criticism are reduced; judgment, reasoning, reflexes, and co-ordination are impaired; reaction time, self-confidence, and aggressiveness are increased.

## Why Do Some People Get More Intoxicated on the Same Amount of Alcohol?



The alcohol in a drink is absorbed directly from the stomach and lower intestine into the blood which takes it to all cells of the body, including the brain. The speed of absorption depends on the amount of food in the stomach. A drink which packs a terrific punch before dinner will seem to have far less effect after dinner.

After absorption, alcohol is diluted by the blood and other body fluids. A 200-pound man has more blood and body fluids than a 100-pound man. Thus the same amount of alcohol becomes more diluted in the heavier than in the lighter man. The more diluted the alcohol, the less effect it has on the brain. So we can expect a larger person to be able to “hold his liquor” better than a smaller one.



## **Do Other Factors Affect Intoxication?**

The personality of a drinker also has something to do with the way he reacts to alcohol. A person who is too shy or backward when sober may act in what we consider a "normal" way when he has had a few; while a very impulsive person may become boisterous or aggressive. We must also consider the person's mood and the occasion. To take two extreme examples: at a New Year's Eve party drinkers may want and expect alcohol to make them gay and carefree, so a relatively small amount of alcohol will do this for them; but the same amount of alcohol taken at a formal reception where gaiety and carelessness are out of place, seems to have far less effect.

An experienced drinker seems to be able to hold his liquor much better than a novice. The difference is not in the physical effects of alcohol. The experienced drinker is familiar with the effects of alcohol and adjusts his behavior accordingly.

The Yale University School of Alcohol Studies (now at Rutgers) compared effects of a moderate amount of alcohol on two groups; one consisting of regular, heavy drinkers from Skid Row and the other of school teachers who were occasional, light drinkers. The school teachers showed all the stereotyped signs of intoxication — they staggered, giggled, were noisy and aggressive. The other group appeared completely sober! But psychological tests of reaction speed, visual ability, and manual dexterity, demonstrated that the Skid Row participants were just as affected by alcohol as the school teachers. The heavy drinkers had merely controlled their behavior because they were accustomed to drinking.

## **Why Do Some People Get Sick After Only a Few Drinks?**

There is a ring of muscles between the stomach and small intestine called the pyloric valve. If through some physical or emotional reaction, this ring should close, alcohol remains unabsorbed in the stomach. The stomach can't retain it and frequently rejects alcohol the quickest way — the drinker vomits. The cause of pyloric spasm may be an extra-sensitive stomach or fear of the effects of alcohol. People who regularly suffer from pyloric spasm, rarely become excessive drinkers.

## Can a Person Sober Up Quickly?



No! It is commonly thought that to "drink black coffee", "have a cold shower", "run around the block", will help. Although these devices may wake up the drinker, they don't speed elimination of alcohol from his body — he's just a wide-awake drunk instead of a sleepy drunk.

To understand why these methods don't work, we must know how the body gets rid of alcohol. This is the process of oxidation (burning) which

breaks down alcohol into water, carbon dioxide, and energy. The liver is the only organ which oxidizes alcohol. In an average 150-pound person, the rate of oxidation is about one-third of an ounce of pure alcohol per hour; the same amount contained in a three-quarter ounce of whiskey or five ounces of beer. As yet science has found no way to increase the rate of oxidation. No matter what you do only one-third of an ounce of alcohol per hour is going to be eliminated from your body. Only time can make you sober.

## What Makes a Person Drunk?

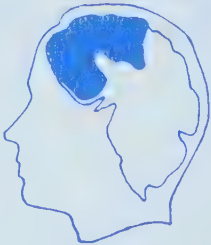
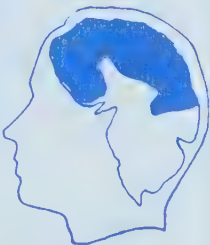
If a 150-pound person drank no more than 5 ounces of beer or  $\frac{3}{4}$  ounce of whiskey each hour, the alcohol would be oxidized as fast as he drank it. But many people drink at a faster rate than the body can eliminate alcohol. Surplus alcohol continues to circulate throughout the body until all is finally oxidized by the liver. The only part of the body it affects is the nervous system. It is not alcohol in the legs that makes knees wobbly, or alcohol in the fingers that makes a person clumsy. These things occur because that part of the brain which controls muscular co-ordination has become sluggish.



# How Does Alcohol Affect the Brain?

The brain has three major sections — the cerebrum, cerebellum, and medulla. The cerebrum or upper brain is the centre of judgment, reason, and emotional control and is the first affected by alcohol. The cerebellum or mid-brain is the next to be dulled. It is the centre of muscular co-ordination, physical control and vision. The lower brain, the medulla, controls our automatic, unconscious actions, such as breathing. If you managed to drink enough to effect the medulla, you would probably die but you must drink a great deal before death is the immediate result.

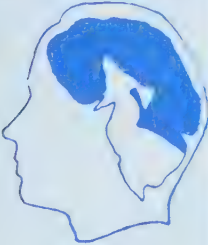

Following is a chart of blood alcohol concentrations resulting from varying amounts of alcohol, the time it takes for these amounts to be oxidized, and the effects alcohol has on the body. The figures are calculated on the basis of alcohol consumed in a short period of time by persons weighing 150 and 100 pounds, in normal physical condition.

<b>BLOOD ALCOHOL LEVEL</b>			
		0.05%	0.1%
<b>Amount</b>	100 lb.	2 beers	3½ beers
<b>Drunk by</b>	150 lb.	3 beers	5 beers
<b>EFFECTS</b>		<ul style="list-style-type: none"><li>● Inhibitions &amp; anxiety reduced</li><li>● More emotional</li><li>● Feeling of warmth</li><li>● Judgement impaired</li></ul>	<ul style="list-style-type: none"><li>● Impulsive &amp; talkative</li><li>● Over-Confident</li><li>● Coordination affected</li><li>● Speech slurred</li></ul>
<b>Time for alcohol to be eliminated</b>		7 hours	10 hours

# What is a Hangover?

The moderate drinker's hangover has a combination of causes. First, if he drank enough the night before, he is still feeling the effects of alcohol and may be drunk, shaky, or seeing double before breakfast. He has frequently expended too much energy, stayed up too late while he was drinking, and is tired the next morning. He probably drank too much ginger ale or coca-cola (as mixes), smoked too much, ate too much and, as a result, suffers from indigestion. He is drunk, tired, and dyspeptic; and probably feels guilty about his intemperance and behavior the night before. The only cure for this hangover is time, rest, and perhaps an aspirin or antacid tablet. Popular "cures" such as raw eggs, peppery sauces, chalky-tasting medicines, a workout in the gym do nothing to dispel a hangover.

The heavy drinker's alcoholic hangover is a more serious condition. He has drunk so much that his entire nervous system is in a turmoil. The next morning he feels this in every nerve of his body — splitting headache, raging thirst, furry tongue, pounding heart, queasy stomach, pains, chills, shakiness — and guilt. Again, the only cure is rest and time for the body to return to normal. "A har of the dog that bit you." another drink, merely postpones recovery.

		ANY  LEVEL  OVER  0.5%  MAY  LEAD  TO  DEATH
0.2%	0.5%	
6 beers	2 3/4 bottle whiskey	
8 beers	1 bottle whiskey	
<ul style="list-style-type: none"><li>● Emotional extremes</li><li>● Staggering</li><li>● Sees double</li></ul>	UNCONSCIOUS	
19 hours	30 hours	

## **Does Alcohol Affect Sexual Behavior?**

People normally learn to control their sex drives but drinking releases much of this control. Sex drive is not stimulated — inhibitions are removed. This is a case of “releasing the brakes”.



## **Does Alcohol Make You a Better Driver?**

Many people insist that a couple of drinks improve their driving. But scientific tests have proven this claim to be dangerous nonsense. Alcohol in your body impairs reflexes, coordination, judgment, and vision. Even after a small amount of alcohol, reactions decrease by as much as 40% — this means that at 30 miles per hour, your car would travel 6½ feet further before you stop, and proportionately greater distances at higher speeds.

Perhaps the most dangerous impairment is that of judgment. After a few drinks the driver feels he has never driven better. He is overconfident, more willing to take risks, yet his skill is actually reduced. Young people should refuse to ride with a driver who has been drinking. No matter how he feels about it, his ability to drive is reduced. Don't risk your life.

## **Is Alcohol a Good Medicine for Colds or Other Ailments?**

Doctors know there is little medicinal value in alcohol. Sometimes it is prescribed as a mild sedative for old people or in certain heart diseases. Alcohol is definitely the wrong thing to give in cases of shock, heat exhaustion or snake bite, because it is not a stimulant.

What about drinking at a football game? Won't this keep you warm? Believe it or not, it will actually cool you off. Alcohol dilates blood vessels in the skin, giving an impression of warmth, but by doing this heat is actually lost, and the drinker becomes colder.



## **Can Alcohol Harm the Body?**

Continued heavy use of alcohol can do much damage but moderate drinking will cause no permanent physical harm. The concentration of alcohol in the blood is far too low to damage body cells. Even if a 150-pound man drank a bottle of whiskey in an hour, the concentration would reach only about .5%, or five drops of alcohol to a thousand drops of blood. He would probably become unconscious, but would recover.

Some diseases are related to heavy use of alcohol. Alcohol has a high caloric value — it gives out energy (and, incidentally, is fattening!). The heavy drinker can obtain a large portion of his daily calorie needs from alcohol — and so may neglect to eat adequately. Alcohol contains none of the vitamins, proteins, or minerals essential to physical health. As a result, many heavy drinkers suffer from dietary deficiencies and often develop serious diseases of liver, skin, and nervous system.

## **What is Alcoholism?**

Alcoholism is a serious, progressive illness. A common symptom of this illness is the victim's inability to control the amount of alcohol he drinks. Involuntary loss of control causes increasingly serious problems in many areas of the alcoholic's life — in his home, his community, and his work. The alcoholic can be treated successfully, but he can never again drink beverage alcohol without risking a relapse into alcoholism.

There is no reason to believe that a person who develops alcoholism is a "bad" person. Those who drink excessively do risk becoming alcoholic no matter what kind of character they have, or where they live, or how much money they possess. It is important to understand that for some people drinking can become a serious illness, no matter what kind of persons they may be. With proper treatment they can be rehabilitated and are able to lead useful lives again.

## Services:

*The Alberta Alcoholism and Drug Abuse Commission provides treatment, education and information services to the province from four Alberta population centres:*



### EDMONTON:

Out-patient Clinic, 9910 — 103 Street  
Telephone 424-1141

Henwood, R.R. 6, Edmonton  
Telephone 799-3341

Community Services, 9929 — 103 St.  
Telephone 424-1141

### CALGARY:

Out-patient Clinic,  
737 — 13 Avenue S.W.  
Telephone 269-6101

Community Services,  
812 — 16 Avenue S.W.  
Telephone 269-6101

### RED DEER:

Red Deer General Hospital  
Telephone 347-3378

### LETHBRIDGE:

Room "1", 303 — 5 Street S.  
Telephone 328-1042

Each centre offers individual and group counselling and therapy to alcoholic patients. Medical, psychiatric and psychological treatment is available as required. Patient referrals are accepted from all sources and **all patient information is maintained in strict confidence.** Treatment personnel work closely with wives and other relatives of alcoholic patients, as well as with physicians, employers, clergy, or professional workers, agencies or associations.

## THE ALBERTA ALCOHOLISM AND DRUG ABUSE COMMISSION

Administrative Centre  
9929 — 103 Street, Edmonton, Alberta.

Oct. 1972



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